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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/975,029	10/10/2001	Thomas Jaskiewicz	SMQ-075	7607

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28 STATE STREET
BOSTON, MA 02109

EXAMINER

ROBINSON, GRETA LEE

ART UNIT PAPER NUMBER

2177

DATE MAILED: 07/21/2004

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Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary

Application No.

09/975,029

Applicant(s)

JASKIEWICZ, THOMAS

Examiner

Greta L. Robinson

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 May 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

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DETAILED ACTION

1. Claims 1-22 are pending in the present application.
2. Claims 1-5, 13-15 and 18-19 have been amended.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-4 are rejected under 35 U.S.C. 102(b) as being anticipated by Brocker et al. US Patent 5,365,606.

Regarding claims 1-4, Brocker et al. teaches in a network having a host electronic device and a plurality of storage devices with a storage mediums [note: figure 3; and abstract and column 2 lines 45-51], a method, comprising the steps of:

“providing a plurality of controllers interfaced with said network that control access to said storage devices” [see: figure 4 group controllers 74a and 74b; column 7 lines 12-33]; and “providing a virtual interface” [note column 3 lines 10-50 virtual interface system 30]; “receiving with said virtual interface at least one of a data read requests and a write request” [note column 2 line 57 through column 3 line 7; column 5

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line 50 through column 6 line 34]; "determining with said virtual interface a destination"
[note: figures 3 and 4; also see column 5 line 50 through column 6 line 34].

Brocker et al. teaches a virtual interface (note system 30) with controllers (74a and 74b). The virtual interface manages requests for reading and writing data note VMI 42.

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 13-22 are rejected under 35 U.S.C. 102(e) as being anticipated by Grun US Patent 6,272,591 B2.

Regarding claim 13, Grun teaches "a software facility for creating a virtual interface" [note: "creates N virtual interface" abstract; also note generate N virtual channels step 120 figure 2; column 4 lines 43-48; column 3 lines 47-54].

Regarding claims 14-16, sending said at least one read/write request to said virtual interface ... [note: column 4 lines 6-37].

The limitations of claims 19, 21 and 22 have been addressed above; therefore they are rejected under the same rationale.

Regarding claims 17, 18 and 20 Grun teaches the software facility copies said data to a different storage medium [note: write each data block stored in N locations in RAID Controller memory to a different one of N storage devices, step 150 figure 2; also see column 3 line 65 through column 4 line 2].

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 5-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brocker et al. US Patent 5,365,606 in view of Grun US Patent 6,272,591 B2.

Although Brocker et al. teaches the invention substantially, regarding claims 5-12 they do not explicitly disclose that the controller is a RAID. **Grun** teaches a RAID device coupled to a virtual interface [note column 2 lines 25-31; figures 1 and 2; also note abstract]. It would have been obvious to one of ordinary skill at the time of the invention to have combined Grun with Brocker et al. because the RAID controller of Grun would provide for receiving I/O requests.

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Response to Arguments

9. Applicant's arguments with respect to claims 1-22 have been considered but are moot in view of the new ground(s) of rejection.

In the response applicant argued that the response and amendment of the claims overcomes the rejections cited under 35 USC 112 first and second paragraphs. In response to the amendment and remarks the previous rejections are overcome; however a new rejection is cited referencing prior art Brocker et al. and Grun.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Oheda US Patent 6,754,679 B2

Cork et al. US Patent 6,542,910 B2

Black et al. US Patent 6,671,699 B1

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not

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mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.


12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Greta L. Robinson whose telephone number is (703) 308-7565. The examiner can normally be reached on Mon.-Fri. 9:30AM-6:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John E. Breene can be reached on (703) 305-9790. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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GRETA ROBINSON
PRIMARY EXAMINER

Greta Robinson
Primary Examiner
July 19, 2004